



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/803,076

03/18/2004

Kia Silverbrook

FPD004US

5188

24011 7590 06/13/2008  
SILVERBROOK RESEARCH PTY LTD  
393 DARLING STREET  
BALMAIN, 2041  
AUSTRALIA

EXAMINER

TYLER, NATHAN K

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

06/13/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/803,076	<b>Applicant(s)</b> SILVERBROOK, KIA	
	<b>Examiner</b> NATHAN K. TYLER	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 29 January 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 31-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 and 31-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, filed 29 January 2008, with respect to claim 30 have been fully considered and are persuasive. The objection to claim 30 has been withdrawn.
2. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6, 8-13, 16-19, 21, 22-28, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Saito et al. (US 5731829 A) and Minemoto et al. (US 6188569 B1).

Regarding **claim 1**, Saito discloses a printing and display device comprising: a housing used in conjunction with the printing and display device (housing shown in Fig. 18 enclosing the display and printer), the housing have an ejection slot in the base wall of the housing (Fig. 18 shows the ejection slot in the top of the base wall of the housing); a flat panel display being disposed within the housing (Fig. 17, numeral 405); and a printer being disposed within the housing (Fig. 17, numeral 409), the printer including a printhead for printing onto paper and ejecting the paper via the ejection slot (Fig. 19 shows printhead 501. Fig. 18, numeral 409. Ejection slot in the top of the base wall shown with paper 411 being ejected); wherein the printing and display device is configured such that, during printing, the paper being printed passes between the flat panel display and the printhead within the housing, or passes behind the flat panel display and the printhead within the housing relative to a viewing position of the flat panel display (As shown in Fig. 18, the paper being printed can pass either between the flat panel display and the printhead, or behind the flat panel display and the printhead, depending on the orientation of printer 409).

Saito does not disclose that the printing and display housing is detached from a computer system used in conjunction with the printing and display device.

Minemoto teaches a flat panel display contained in a housing that is detached from the computer system used in conjunction with the display (Fig. 1).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the printing and display device taught by Saito such that the printing and display housing is detached from the computer system as taught by Minemoto, in order to obtain

similar advantages to using a detached display, i.e. more desktop space, easier to upgrade the computer system, etc...

Regarding **claim 2**, Saito does not disclose that a viewable size of the printing and display device exceeds 40cm measured along a diagonal of the printing and display device.

Minemoto discloses a flat panel display with a viewable size exceeding 40cm diagonally (column 26, lines 16-23).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the printing and display device disclosed by Saito with a display with a viewable size larger than 40cm diagonally as taught by Minemoto in order to improve the quality of the visual display.

Regarding **claim 3**, Saito does not disclose that the embodiment used to reject claim 1 includes a printhead which is disposed adjacent a lower edge of the fiat panel display. Fig. 5B shows an embodiment with the printhead 72 disposed adjacent a lower edge of the flat panel display. It would have been obvious at the time the invention was made to one of ordinary skill in the art to locate printhead as applied in the rejection of claim 1 adjacent to the lower edge of the display as taught by Saito in order to integrate the printhead with the printing and display device.

Regarding **claim 4**, Saito discloses that the printhead extends horizontally, when the device is in use (As shown in Fig. 19, the print head 501 extends horizontally during printing).

Regarding **claim 6**, Saito discloses that the printing and display device is configured to receive print data to be printed, and display data to be displayed, from a computer system (Fig. 17 shows that the printer and display are part of an integral computer system housed in body 401).

Regarding **claim 8**, Saito does not explicitly disclose that the connection includes at least one socket for accepting at least one corresponding data cable.

Minemoto teaches sockets for accepting corresponding data cables (see Fig. 2, numerals 21-22).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the printing and display device disclosed by Saito with a socket to accept a corresponding data cable as taught by Minemoto as sockets to accept data cables are well known and commonly used in the art.

Regarding **claim 9**, Saito does not disclose that the connection includes a wireless receiver for receiving the print data and/or the display data.

Minemoto teaches receiving display data wirelessly (column 5, lines 10-31).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the printing and display device disclosed by Saito with a wireless receiver as taught by Minemoto in order to reduce the number of physical interconnects required to transmit data.

Regarding **claim 10**, the combination of Saito and Minemoto as applied to claim 8 discloses that the connection is a Universal Synchronous Bus (USB) connection (Minemoto Fig. 2, numeral 22).

Regarding **claim 11**, Saito discloses a printing and display device as claimed in claim 1, further including a paper feed mechanism for feeding paper to the printhead for printing, the printhead being arranged to print onto the paper (with reference to Fig. 19: “Reference numeral 515 represents a feeding roller for feeding the recording medium 411” at column 18, line 55).

Regarding **claim 12**, Saito discloses that the paper feed mechanism is configured to position the paper substantially parallel in at least one direction with respect to a plane defined by the flat panel display (The paper is parallel to the plane formed by the flat panel as shown in Fig. 18).

Regarding **claim 13** as dependent from claim 10, Saito discloses the paper feed mechanism is configured to accept a single sheet of paper at a time for printing (Figs. 18 and 19 show a single sheet of paper being accepted by the roller 515).

Regarding **claim 15**, Saito discloses that the printer is a process color printer (see Fig. 17).

Regarding **claim 16**, Saito discloses that the printer is an inkjet printer (“reference numeral 501 represents a head cartridge comprising an ink jet recording head” at column 17, line 65).

Regarding **claim 17**, while Saito does not explicitly disclose that the printer has more than 5,000 inkjet nozzles, it is well known in the art to use more than 5,000 nozzles in an inkjet printer to provide high print quality [official notice].

Regarding **claim 18**, Saito discloses that the printer is a page-width printer (column 23, lines 63-67).

Regarding **claim 19**, the combination of Saito and Minemoto as applied to claim 2 discloses that the flat panel display measures at least 14 inches on the diagonal (see grounds for rejection for claim 2).

Regarding **claim 21**, Saito discloses that the printing and display device is configured to enable printing of standard A4 or Letter sized sheets of paper (“a thin and long recording paper sheet such as an ordinary A4 sheet or a letter is used” at column 15, line 1).

Regarding **claim 22**, Saito discloses a printing and display device configured such that paper to be printed is fed manually into a paper path that directs the paper from a region adjacent the upper edge of the fiat panel display, past the printhead for printing, then out of the device adjacent a lower edge of the fiat panel display (see Fig. 68).

Regarding **claim 23**, Saito discloses a printing and display device including a curved paper guide disposed, when the device is in use, beneath the flat panel display, such that the paper that has been printed is urged horizontally as it exits the device (Fig. 68, numeral 3332).

Regarding **claim 24**, Saito discloses that the flat panel display is of one of the following types: a. Liquid Crystal Display (LCD); b. Field Emission display (FED) c. Plasma Display Panel (PDP) (“The display 407 may be a liquid crystal display or a plasma display or the like” at column 16, line 60).

Regarding **claim 25**, it would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the printing and display device disclosed by Saito with



a printhead configured to receive halftoned print data to be printed onto the print media, as halftoning is commonly used in the art [official notice].

Regarding **claim 26**, it would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the printing and display device disclosed by Saito with a halftoning unit for generating halftoned image data and supplying it to the printhead for printing as halftoning is commonly used in the art [official notice].

Regarding **claim 27**, Saito discloses that the printhead is configured to print photographic images (printhead 501 shown in Fig. 19 is capable of printing photographic images).

Regarding **claim 28**, Saito discloses that the printhead is configured to print image and text data (printhead 501 shown in Fig. 19 is capable of printing images and text).

Regarding **claim 31**, Saito discloses a flat panel display for displaying images from a computer (see grounds for rejection for claim 1); a stand for holding the flat panel display in an operative position (Figs. 17 and 18 show the flat panel held in a vertical position); and a printer, the printer including a printhead for printing onto paper (see grounds for rejection for claim 1); wherein the stand includes at least one receptacle configured to accept at least one replaceable ink cartridge for supplying ink to the printer (“reference numeral 501 represents a head cartridge comprising an ink jet recording head and an ink tank which are integrally formed. The head cartridge 501 is detachably fastened to the ink jet recording apparatus shown in FIG. 19 and the same can be interchanged with a novel head cartridge when the ink in the ink tank is consumed” at column 17, line 65).

Regarding **claim 35**, Saito discloses a printing and display device configured to receive documents to be printed from a computer system, the printing and display device including an

Art Unit: 2625

interface (Fig. 25, “keyboard”), and being configured to: receive, via the interface, input from a user indicative of a print command (“recording command key”); send, from the printing and display device to the computer system, a print request; receive, from the computer system and in response to the print request, a document to be printed (controller, i/f, data supply device); and print the document (“recording head”).

5. Claims 5, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Saito and Minemoto as applied to claim 1 above, and further in view of Morgavi (US 5558449 A).

Regarding **claim 5**, Saito does not disclose that the printer includes at least two the printheads, the printheads being disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing of both sides of the print media.

Morgavi teaches a printing apparatus using two print heads to achieve simultaneous double sided printing (see Fig. 1).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the printing and display device disclosed by Saito with dual printheads as taught by Morgavi in order to achieve simultaneous double sided printing.

Regarding **claim 7**, Saito discloses that the printing and display device includes a connection configured to allow releasable operative connection of the computer system to the

printing and display device, for receiving the print data and the display data from the computer system (see Fig. 17).

Regarding **claim 20**, the combination of Saito and Morgavi as applied to claim 5 discloses at least two of the printheads, the printheads being disposed on either side of a path through which the paper is fed for printing, thereby enabling substantially simultaneous printing of both sides of a sheet of paper (see grounds for rejection for claim 5).

Regarding **claim 29**, Saito discloses that the computer system is a personal computer (see Fig. 17).

Regarding **claim 34**, the combination of Saito and Morgavi as applied to claim 5 discloses a printer including at least two the printheads, the printheads being disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing of both sides of the print media (see grounds for rejection for claim 5).

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Saito and Minemoto as applied to claim 10 above, and further in view of Lee (US 5752049 A).

Regarding **claim 14** as dependent from claim 10, the combination of Saito and Minemoto does not disclose that the paper feed mechanism includes a paper separator for feeding a single sheet of paper to the printhead from a stack of sheets of paper.

Lee teaches a printer including a separator for feeding a single sheet out of a stack of sheets (Fig. 2, numeral 216).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the printing and display apparatus disclosed by the combination of Saito and Minemoto with the paper separator taught by Lee so that more than one sheet of paper could be loaded into the device at a time.

7. Claims 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Saito and Minemoto as applied to claim 1 above, and further in view of Lee (US 5752049 A).

Regarding **claim 14** as dependent from claim 11, Saito does not disclose that the paper feed mechanism includes a paper separator for feeding a single sheet of paper to the printhead from a stack of sheets of paper.

Lee teaches a printer including a separator for feeding a single sheet out of a stack of sheets (Fig. 2, numeral 216).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the printing and display apparatus disclosed by Saito with the paper separator taught by Lee so that more than one sheet of paper could be loaded into the device at a time.

Regarding **claim 33**, the combination of Saito and Lee as applied to claim 14 discloses a multi-sheet paper holder (Fig. 2, numeral 108) and a paper sheet separator configured to separate a single paper sheet from the paper in the paper holder for supply to the printhead (see grounds for rejection for claim 14).

8. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Saito and Minemoto as applied to claim 1 above, and further in view of MacLeod et al. (US 6356901 B1).

Regarding **claim 32**, Saito does not disclose a data connection hub configured to allow connection of at least one data-receiving device to the printing and display device, enabling the data-receiving device to receive data from the computer.

MacLeod teaches a personal computer (Fig. 1, numeral 20 “Computer”) including a data connection hub (“Network I/F” 53) connected to at least one data-receiving device (“Remote Computers” 49).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the printing and display device disclosed by Saito with a data connection hub as taught by MacLeod in order to enable the printing and display device to communicate with other computers.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 2625

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN K. TYLER whose telephone number is (571)270-1584. The examiner can normally be reached on M-F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/  
Supervisory Patent Examiner, Art Unit 2625

/Nathan K Tyler/  
Examiner  
Art Unit 2625